

BB-1037-C

TITLE
CHIMERIC GENES AND METHODS FOR
INCREASING THE LYSINE AND THREONINE
CONTENT OF THE SEEDS OF PLANTS

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TECHNICAL FIELD

This invention relates to four chimeric genes, a first encoding lysine-insensitive aspartokinase (AK), which is operably linked to a plant chloroplast transit sequence, a second encoding lysine-insensitive dihydrodipicolinic acid synthase (DHDPS), which is operably linked to a plant chloroplast transit sequence, a third encoding a lysine-rich protein, and a fourth encoding a plant lysine ketoglutarate reductase, all operably linked to plant seed-specific regulatory sequences. Methods for their use to produce increased levels of lysine or threonine in the seeds of transformed plants are provided. Also provided are transformed plants wherein the seeds accumulate lysine or threonine to higher levels than untransformed plants.

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